In the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the Application.

Listing of Claims:

1. (Currently amended) A method for modeling a system having one or more components, comprising:

(a) dividing said system into one or more components;

(b) defining a plurality of realms, wherein each of said realms contains objects representing attributes and relationships of selected ones of said one or more components, wherein said one or more components represented include at least one physical element of the system~~, said objects representing attributes and relationships of an associated one of the one or more components~~;

(c) defining associations between realms to unify objects in said realms, wherein said associations represent at least one object common to at least two of said realms; ~~and~~

(d) unifying objects in said realms based on said associations; and

(e) processing a function in a realm independent of said other realms, and based on said processing propagating a behavior of one of the unified objects of one realm to said unified object of another realm using at least one association between the one realm and the another realm.

2. (Currently Amended) The method of Claim 1, further comprising the step of:

~~unified processing of two or more realms by performing processing in each of said two or more realms, and~~

combining results thereof based on said associations of said two or more realms.

3. (Previously presented) The method of Claim 1 wherein said system is an enterprise management system.

4. (Previously presented) The method of Claim 1 wherein said realms comprise at least one realm modeling business service components and at least one realm modeling infrastructure components.

5. (Previously presented) The method of Claim 2 wherein the unified processing identifies infrastructure problems impacting applications, applications impacting services, or infrastructure problems impacting services.

6. (Previously presented) The method of Claim 1 wherein said system is selected from a group consisting of: an engineering system, a distributed system, and application server system, a networked system, an optical system, a wireless network, an IP network, a layered network, a Multi-Protocol Label Switching Virtual Private Network (MPLS VPN), a messaging system, an ERP system, a dynamic system, a static system, a utility computing system, an automatic computing system, a grid system, and on-demand system, and an adaptive system.

7.- 19. (Cancelled)

20. (Previously presented) The method of Claim 1 wherein said system comprises a network, and wherein said plurality of realms comprises at least one realm modeling network infrastructure components and at least one realm modeling network security components.

21. (Previously presented) The method of Claim 1 wherein the step of defining a plurality of realms is performed manually.

22. (Previously presented) The method of Claim 1 1 wherein the step of defining a plurality of realms is performed automatically based on given properties of said one or more components.

23. (Previously presented) The method of Claim 1 wherein 1 wherein the step of defining associations is performed manually.

24. (Previously presented) The method of Claim 1 wherein the step of defining associations is performed automatically based on given properties of said objects.

25. (Previously presented) The method of Claim 1 wherein the step of defining associations comprises identifying objects in different realms representing the same component.

26. (Previously presented) The method of Claim 25 wherein the objects in different realms are substantially identical.

27. (original) The method of Claim 25 wherein the objects in different realms are different.

28. (original) The method of Claim 27 wherein the objects in different realms have different attributes.

29. (original) The method of Claim 1 wherein step (c) comprises defining a relationship object between objects in different realms.

30. (original) The method of Claim 1 wherein said plurality of realms are defined based on selecting subsets of components in said system.

31. (original) The method of Claim 1 wherein said plurality of realms are defined based on different perspectives of the same component in said system.

32. (original) The method of Claim 1 wherein said plurality of realms are defined based on different levels of abstraction of the same component in said system.

33. (Previously presented) The method of claim 2 wherein said unified processing is selected from the group consisting of: monitoring, analyzing, control, simulation, visualization, configuration, provisioning and design of said system.

34. – 41 (Cancelled).

42. (Previously presented) The method of claim 2 wherein said unified processing is selected from a group consisting: root cause analysis of events in said system, and correlation of events in said system.

43. (cancelled)

44. (Previously presented) The method of Claim 1 wherein the step of dividing said system comprises the step of:

defining said plurality of realms based on one or more models of said system or portions thereof.

45. (Original) The method of Claim 44 wherein said realms are defined by adding associations to one or more pre-existing models of the system.

46. – 61 (Cancelled).

62. (Currently amended) A model of a system having one or more components, the model comprising:

a plurality of realms having objects ~~therein~~ representing attributes and relationships of one or more of components or relationships between components, wherein said one or more components represented include at least one physical element of the system~~, said objects representing attributes and relationships of an associated one of the one or more components; and~~

associations between realms sufficient to unify objects in the realms, wherein said associations represent at least one object common to at least two of said realms,

a function in a realm independent of said other realms, and

~~where~~ a behavior of one of the unified objects of one realm, based on the function, is propagated to said unified object of another realm using at least one association between the one realm and the another realm.

63. (Cancelled)

64. (Previously presented) The model of Claim 62 wherein the objects corresponding to said associations in different realms are substantially identical.

65. (Previously presented) The model of Claim 62 wherein the objects corresponding to said associations in different realms are different.

66. (Original) The model of Claim 65 wherein the objects in different realms have different attributes.

67. (Original) The model of Claim 62 wherein said associations comprise a relationship object between objects in different realms.

68. (Original) The model of Claim 62 wherein said plurality of realms are defined based on selecting subsets of components in said system.

69. (Original) The model of Claim 62 wherein said plurality of realms are defined based on different perspectives of the same component in said system.

70. (Original) The model of Claim 62 wherein said plurality of realms are defined based on different levels of abstraction of the same component in said system.

71. (Original) The model of Claim 62 wherein said system is an enterprise management system.

72. (Previously presented) The model of Claim 62 wherein said realms comprise one or more business service realms, one or more application realms, and/or one or more infrastructure realms.

72. (Cancelled)

72a. (Cancelled)

73. (Previously presented) The model of Claim 62 wherein said system is selected from the group consisting of: an engineering system, a distributed system, an application server system a networked system, an optical network, a wireless network, an IP network, a layered network, a Multi-Protocol Label Switching Virtual Private Network (MPLS VPN), a messaging system, an ERP system, a dynamic system, a static system, a utility computing system, an autonomic computing system, a grid system, an on-demand system or an adaptive system.

74. – 86. (Cancelled)

87. (Original) The model of Claim 62 wherein said system comprises a network, and wherein said plurality of realms comprises at least one realm modeling network infrastructure components and at least one realm modeling network security components.

88. (Currently amended) A computer program product in computer-readable media for modeling a system having one or more components, the computer program product comprising instructions for causing a computer to:

(a) divide said system into one or more components wherein components include at least one physical element of the system;

(b) define a plurality of realms including objects therein representing attributes and relationships of said one or more components, wherein said one or more components represented include at least one physical element of the system ~~said objects representing attributes and relationships of an associated one of the one or more components~~;

(c) define associations between realms sufficient to unify the realms, wherein said associations represent at least one object common to at least two of said realms; ~~and~~

(d) unify objects in the realms based on said associations;

(e) process a function in a realm independent of said other realms, and based on said process; and

(f) propagate a behavior of one of the unified objects of one realm to said unified object of another realm using at least one association between the one realm and the another realm.

89. (Previously presented) The computer program product of Claim 88 further comprising instructions for causing the computer to:

perform unified processing of two or more realms by performing processing in each of said two or more realms, and combining results thereof based on said associations of said two or more realms.

90. (Previously presented) The computer program product of Claim 88 wherein said system is an enterprise management system.

91. (Previously presented) The computer program product of Claim 88 wherein said realms comprise at least one realm modeling business service components and at least one realm modeling infrastructure components.

92. (Previously presented) The computer program product of Claim 88 wherein the unified processing identifies infrastructure problems impacting applications, applications impacting business services, or infrastructure problems impacting business services.

93. (Previously presented) The computer program product of Claim 88 wherein said system is selected from the group consisting of: an engineering system, a distributed system, an application server system, a networked system, an optical network,

a wireless network, an IP network, a layered network, a Multi-Protocol Label Switching Virtual Private Network (MPLS VPN), a messaging system, an ERP system, a dynamic system, a static system, a utility computing system, an autonomic computing system, a grid system, an on-demand system or an adaptive system.

94. – 106. (Cancelled)

107. (Previously presented) The computer program product of Claim 88 wherein said system comprises a network, and wherein said plurality of realms comprises at least one realm modeling network infrastructure components and at least one realm modeling network security components.

108. (Previously presented) The computer program product of Claim 88 wherein the step of dividing is performed automatically based on given properties of said one or more components.

109. (Previously presented) The computer program product of Claim 88 wherein the step of defining associations is performed automatically based on given properties of said objects.

110. (Previously presented) The computer program product of Claim 88 wherein the step of defining associations comprises identifying objects in different realms representing the same component.

111. (Previously presented) The computer program product of Claim 110 wherein the objects in different realms are substantially identical.

112. (Original) The computer program product of Claim 110 wherein the objects in different realms are different.

113. (Original) The computer program product of Claim 112 wherein the objects in different realms have different attributes.

114. (Original) The computer program product of Claim 88 wherein (c) comprises defining a relationship object between objects in different realms.

115. (Original) The computer program product of Claim 88 wherein said plurality of realms are defined based on selecting subsets of components in said system.

116. (Original) The computer program product of Claim 88 wherein said plurality of realms are defined based on different perspectives of the same component in said system.

117. (Original) The computer program product of Claim 88 wherein said plurality of realms are defined based on different levels of abstraction of the same component in said system.

118. (Previously presented) The computer program product of Claim 89 wherein said unified processing is selected from a group consisting of: monitoring, analyzing, control, simulation, visualization, configuration, provisioning and design of said system.

119. – 126. (Cancelled)

127. (Previously presented) The computer program product of Claim 89 wherein said unified processing is selected from a group consisting of root cause analysis of events in said system, and correlation of events in said system.

128. (Cancelled)

129. (Previously presented) The computer program product of Claim 88 wherein the step of dividing comprises defining said plurality of realms based on one or more models of said system or portions thereof.

130. (Original) The computer program product of Claim 129 wherein said realms are defined by adding associations to said one or more models.

131. – 146. (Cancelled)

147. (Currently amended) An apparatus for modeling a system having one or more components, the apparatus comprising:

(a) means for dividing said system into one or more components wherein components include at least one physical element of the system;

(b) means for defining a plurality of realms including objects therein representing attributes and relationships of said one or more components, wherein said one or more components represented include at least one physical element of the system ~~said objects representing attributes and relationships of an associated one of the one or more components~~;

(c) means for defining associations between realms sufficient to unify the realms, wherein said associations represent at least one object common to at least two of said realms; ~~and~~

(d) means for unifying objects in the realms based on said associations;

(e) means for processing a function in a realm independent of said other realms, and based on said processing means;and

(f) means for propagating a behavior of one of the unified objects of one realm to said unified object of another realms using at least one association between the one realm and the another realm.

148. (Previously presented) The apparatus of Claim 147 further comprising means for unified processing of two or more realms by performing processing in each of said two or more realms, and combining results thereof based on said associations of said two or more realms.

149. (Previously presented) The apparatus of Claim 147 wherein said system is an enterprise management system.

150. (Previously presented) The apparatus of Claim 147 wherein said realms comprise one or more business service realms, one or more application realms, and/or one or more infrastructure realms.

151. (Previously presented) The apparatus of Claim 147 wherein the combined results identify infrastructure problems impacting applications, applications impacting business services, or infrastructure problems impacting business services.

150. (Cancelled)

151. (Cancelled)

152. (Previously presented) The apparatus of Claim 147 wherein said system is selected from the group consisting of: an engineering system, a distributed system, an application server system, a networked system, an optical network, a wireless network, an IP network, a layered network, a Multi-Protocol Label Switching Virtual Private Network (MPLS VPN), a messaging system, an ERP system, a dynamic system, a static system, a utility computing system, an autonomic computing system, a grid system, an on-demand system or an adaptive system.

153. – 164. (Cancelled)

165. (Previously presented) The apparatus of Claim 147 wherein said system comprises a network, and wherein said plurality of realms comprises at least one realm modeling network infrastructure components and at least one realm modeling network security components.

166. (Previously presented) The apparatus of Claim 147 wherein the step of dividing is performed automatically based on given properties of said one or more components.

167. (Previously presented) The apparatus of Claim 147 wherein the step of defining associations is performed automatically based on given properties of said objects.

168. (Previously presented) The apparatus of Claim 147 the step of defining associations comprises:

means for identifying objects in different realms representing the same component.

169. (Previously presented) The apparatus of Claim 168 wherein the objects in different realms are substantially identical.

170. (Original) The apparatus of Claim 168 wherein the objects in different realms are different.

171. (Original) The apparatus of Claim 170 wherein the objects in different realms have different attributes.

172. (Previously presented) The apparatus of Claim 147 wherein the step of defining associations comprises means for defining a relationship object between objects in different realms.

173. (Original) The apparatus of Claim 147 wherein said plurality of realms are defined based on selecting subsets of components in said system.

174. (Original) The apparatus of Claim 147 wherein said plurality of realms are defined based on different perspectives of the same component in said system.

175. (Original) The apparatus of Claim 147 wherein said plurality of realms are defined based on different levels of abstraction of the same component in said system.

176. (Previously presented) The apparatus of Claim 148 wherein unified processing is selected from the group consisting of: monitoring, analyzing said system.

177. (Original) The apparatus of Claim 148 unified processing comprises analyzing said system.

178. – 184 (Cancelled)

185. (Previously presented) The apparatus of Claim 148 wherein unified processing is selected from a group consisting of: root cause analysis of events in said system and correlation of events in said system.

186. (Cancelled)

187. (Previously presented) The apparatus of Claim 147 wherein the step of dividing comprises means for defining said plurality of realms based on one or more models of said system or portions thereof.

188. (Original) The apparatus of Claim 187 wherein said realms are defined by adding associations to said one or more models.

189. – 204. (Cancelled)

205. (Currently amended) An apparatus for performing processing relating to a system having a plurality of components, comprising:

(a) a storage device for storing a model of the system, the model comprising a plurality of realms having objects therein representing attributes and relationships of said one or more components or relationships between components , wherein said one or more components include at least one physical element of the system~~, said objects representing attributes and relationships of an associated one of the one or more components~~; and associations between realms sufficient to unify objects in the realms, wherein associations represent at least one object common to at least two of said realms; and

(b) means for unified processing of two or more realms by performing processing of a function in a realm independent of said other realms in each of said two or more realms, ~~and~~ combining results thereof based on said associations of said two or more realms and based on said processing propagating a behavior of one of the unified objects of one realm to said unified object of another realms using at least one association between the one realm and the another realm.

206. (Original) The apparatus of Claim 205 wherein said system is an enterprise management system.

207. (Previously presented) The apparatus of Claim 205 wherein said realms comprise at least one realm modeling business service components and at least one realm modeling infrastructure components.

208. (Previously presented) The apparatus of Claim 205 wherein the unified processing identifies infrastructure problems impacting applications, applications impacting business services, or infrastructure problems impacting business services.

209. (Previously presented) The apparatus of Claim 205 wherein said system is selected from a group consisting of: an engineering system, a distributed system, an application server system, a networked system, an optical network, a wireless network, an IP network, a layered network, a Multi-Protocol Label Switching Virtual Private Network (MPLS VPN), a messaging system, an ERP system, a dynamic system, a static system, a utility computing system, an autonomic computing system, a grid system, an on-demand system or an adaptive system.

210. – 222. (Cancelled)

223. (Original) The apparatus of Claim 205 wherein said system comprises a network, and wherein said plurality of realms comprises at least one realm modeling network infrastructure components and at least one realm modeling network security components.

224. (Previously presented) The apparatus of Claim 205 wherein unified processing is selected from a group consisting of: monitoring, analyzing, control, simulation, visualization, configuration, provisioning and design of said system.

225. – 232. (Cancelled)

233. (Previously presented) The apparatus of Claim 205 wherein unified processing is selected from a group consisting of: root cause analysis of events in said system, and correlation of events in said system.

234. (Cancelled)

235. (Cancelled)

236. (Currently amended) A method of modeling a system having one or more components, comprising:

(a) defining a plurality of realms including objects therein representing attributes and relationships of said one or more components , wherein said one or more components include at least one physical element of the system~~, said objects representing attributes and relationships of an associated one of the one or more components~~;

(b) creating associations between realms sufficient to unify the realms, wherein said associations represent at least one object common to at least two of said realms; ~~and~~

(c) unifying objects in the realms;

(d) unified processing of two or more realms by performing processing of a function in each of said two or more realms independent of said other realms, combining results thereof based on said associations of said two or more realms, and propagating a behavior of one of the unified objects of one realm to said unified object of another realms using at least one association between the one realm and the another realm.

237. (Cancelled)

238. (Previously presented) The method of Claim 236 wherein said system is an enterprise management system.

239. (Previously presented) The method of Claim 236 wherein said realms comprise at least one realm modeling business service components and at least one realm modeling infrastructure components.

240. (Previously presented) The method of Claim 236 wherein said realms further include at least one realm modeling application components.

241. (Previously presented) The method of Claim 236 wherein said system is selected from a group consisting of: an engineering system, a distributed system, an application server system, a networked system, an optical network, a wireless network, an IP network, a layered network, a Multi-Protocol Label Switching Virtual Private Network (MPLS VPN), a messaging system, an ERP system, a dynamic system, a static system, a utility computing system, an autonomic computing system, a grid system, an on-demand system or an adaptive system.

242. – 254. (Cancelled)

255. (Previously presented) The method of Claim 236 wherein said system comprises a network, and wherein said plurality of realms comprises at least one realm modeling network infrastructure components and at least one realm modeling network security components.

256. (Previously presented) The method of Claim 236 wherein the step of defining is performed manually.

257. (Previously presented) The method of Claim 236 wherein the step of defining is performed automatically based on given properties of said components.

258. (Previously presented) The method of Claim 236 wherein the step of creating associations is performed manually.

259. (Previously presented) The method of Claim 236 wherein the step of creating associations is performed automatically based on given properties of said objects.

260. (Previously presented) The method of Claim 236 wherein the step of creating associations comprises identifying objects in different realms representing the same component.

261. (Previously presented) The method of Claim 260 wherein the objects in different realms are substantially identical.

262. (Original) The method of Claim 261 wherein the objects in different realms are different.

263. (Original) The method of Claim 262 wherein the objects in different realms have different attributes.

264. (Previously presented) The method of Claim 236 wherein step of defining comprises defining a relationship object between objects in different realms.

265. (Original) The method of Claim 236 wherein said plurality of realms are defined based on selecting subsets of components in said system.

266. (Original)The method of Claim 236 wherein said plurality of realms are defined based on different perspectives of the same component in said system.

267. (Original)The method of Claim 236 wherein said plurality of realms are defined based on different levels of abstraction of the same component in said system.

268. (Previously presented) The method of claim 236 wherein said unified processing is selected from the group consisting of: monitoring, analyzing, control, simulation, visualization, configuration, provisioning and design of said system.

269. – 275. (Cancelled)

276. (Previously presented) The method of claim 236 wherein said unified processing comprises propagation of behaviors of said system across realms.

277. (Previously presented) The method of claim 236 wherein said unified processing is selected from a group consisting of: root cause analysis of events in said system, and correlation of events in said system.

278. (Cancelled)

279. (Previously presented)The method of Claim 236 wherein the step of defining comprises defining said plurality of realms based on one or more models of said system or portions thereof.

280. (Original) The method of Claim 279 wherein said realms are defined by adding associations to said one or more models.

281. – 296. (Cancelled)

297. (Original) The method of Claim 4 wherein said realms further include at least one realm modeling application components.

298. (Previously presented)The method of Claim 2 wherein the unified processing identifies infrastructure problems impacting business services.

299. (Previously presented)The method of Claim 1 wherein the step of unifying is performed manually.

300. (Previously presented)The method of Claim 1 wherein the step of unifying is performed automatically.

301. (Previously presented) The method of claim 2 wherein said unified processing comprises event correlation of said system.

302. (Cancelled)

303. (Original) The computer program product of Claim 91 wherein said realms further include at least one realm modeling application components.

304. (Previously presented)The computer program product of Claim 91 wherein the unified processing identifies infrastructure problems impacting services.

305. (Original) The computer program product of claim 89 wherein said unified processing comprises for event correlation of said system.

306. (Previously presented)The apparatus of Claim 147 wherein said realms further include at least one realm modeling application components.

307. (Previously presented)The apparatus of Claim 148 wherein the unified processing identifies infrastructure problems impacting applications, applications impacting services, or infrastructure problems impacting services.

308. (Original) The apparatus of Claim 148 wherein said unified processing comprises event correlation of said system.

309. (Previously presented)The apparatus of Claim 205 wherein said realms further include at least one realm modeling application components.

310. (Previously presented)The apparatus of Claim 205 wherein the unified processing identifies infrastructure problems impacting services.

311. (Original) The apparatus of Claim 205 wherein said unified processing comprises event correlation of said system.

312. (Previously presented) The method of Claim 236 wherein the unified processing identifies infrastructure problems impacting applications, applications impacting services, or infrastructure problems impacting services.

313. (Previously presented) The method of Claim 236 wherein the unified processing identifies infrastructure problems impacting services.

314. (Previously presented) The method of Claim 236 wherein said unified processing comprises event correlation of said system.

315. (Previously presented)The method of Claim 236 wherein the step of unifying is performed manually.

316. (Previously presented)The method of Claim 236 wherein the step of unifying is performed automatically.

317. (Previously Presented) The model of claim 72 wherein said realms further include at least one realm modeling application components.

318. (Previously presented) The apparatus of claim 147 wherein said realms comprise at least one realm modeling business service components and at least one realm modeling infrastructure components.

319. (Previously presented) The apparatus of claim 147 wherein the unified processing identifies infrastructure problems impacting services.